

# Product Support Bulletin

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Subject: Epson LQ Color Driver for Microsoft Windows 3.0 and 3.1

Date: 4/3/92

Page(s): 1 of 3

PSB No: P-0087

Originator: RSS

The purpose of this bulletin is to announce the availability of an additional color driver for the LQ-860, LQ-2500, and LQ-2550 for the Microsoft Windows 3.0 and 3.1 environments. This driver is primarily intended to provide Device Independent Bitmap (DIB) support for Windows based application software. The most popular of these is Paintbrush which is included with Windows 3.0 and 3.1.

When upgrading to Microsoft Windows version 3.1, it is recommended to use the Epson driver that is included with that version of Windows. The Microsoft Windows version 3.1 drivers have DIB support built-in, in addition to new enhancements.

This bulletin also contains information regarding how the driver is being distributed. In addition, specifications on the color driver and instructions on how to install the driver into your Windows Package are included.

## DISTRIBUTION

The Microsoft Windows LQ Color Driver is available from the following sources:

- 1) The driver can be ordered from Accessory Marketing. The part number is WINCOLOR. To place an order with Accessory Marketing call (800) 922-8911. For a limited time the driver is being distributed free of charge.
- 2) The driver is available from CompuServe. After logging into CompuServe, to access the Epson Forum, type 'GO EPSON' at the prompt.
- 3) The Epson Bulletin Board is the final means for accessing the driver. The Epson BBS number for consumers is (310) 782-4531.

## SPECIFICATIONS

The driver consists of 3 files: GENDRV.DLL, EPSON24C.DRV, and OEMSETUP.INF.

The fonts supported are: Courier, Roman, San Serif, Prestige, Script, OCR-A, OCR-B, Orator, Orator-S.

Graphic densities supported: 360 x 180, 180 x 180, 120 x 180.  
(Horizontal x Vertical)

Paper Sources: Tractor, Bin 1, Bin 2, Manual.

Cartridge or Optional Fonts: Multi-font Cartridge

Paper Size: Letter, 8 1/2 x 11 in.  
Letter, 11 x 8 1/2 in.  
Legal, 8 1/2 x 14 in.  
Fanfold, 14 7/8 x 11 in.  
Tabloid, 11 x 17 in.  
A4, 210 x 297 mm  
A3, 297 x 420 mm  
Fanfold, 210 x 305 mm  
Fanfold, 358 x 305 mm  
#6 envelope, 6 1/2 x 3 5/8 in.  
#10 envelope, 9 1/2 x 4 1/8 in.

## INSTALLATION INSTRUCTIONS

- 1) Choose Control Panel from the Main Group window in Program Manager. The Control Panel window appears.
- 2) Choose the Printers icon. The Printers dialogue box appears.
- 3) Choose the Add Printer button. The dialogue box expands to display a list of printer-driver files.
- 4) Select 'Unlisted Printer' at the end of the display.
- 5) Choose Install.
- 6) Select the correct drive and path to find the Windows driver.
- 7) Select the 'EPSON LQ COLOR' and choose OK.

- 8) Define the new driver as ACTIVE to begin using it immediately.

Refer to the MS Windows User's Manual for further information about printer-driver installation.

## **NOTES**

The LQ-2500 is only supported with tractor paper. This is because in single sheet mode or CSF mode the printer has a large top and bottom non-printable area.

For best results you should print at 360 x 180 DPI for normal printing and 180 x 180 DPI for draft printing.

# Product Support Bulletin

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**Subject:** 24 Pin Printer Error and Beep Codes

**Date:** 4/3/91  
**Page(s):** 1 of 4

**PSB No:** P-0076  
**Originator** JV

Epson printers issue beep tones when certain error conditions exist. Those beeps can assist you in locating and repairing customer's printers. The following error codes are listed by product name.

**NOTE:** Most of the beeps issued by the printers are of .1 second duration with a .1 second pause between beeps. Where the beeps or the pauses are longer, it has been noted in the text. The description "3 Beeps x 2" means two sets of three beeps.

## LQ-200/AP-3000

1 beep:	BEL code
1 beep:	A Control Panel setting is accepted.
3 beeps:	Paper End detected
5 beeps:	Abnormal carriage movement
On-Line light is flashing:	Printhead is over heated. Carriage will stop until the printhead cools down.

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## LQ-500, LQ-510, LQ-1010, LQ-850, LQ-950, LQ-1050, L1000, AP-4000, AP-4500

1 beep:	BEL code (.5 set beep)
1 beep:	A Control Panel setting is accepted
3 beeps:	Paper End detected
5 beeps:	Abnormal carriage movement

**LQ-800, LQ-1000, L750**

1 beep:	BEL code
1 beep:	A Control Panel setting is accepted
3 beeps:	Paper End detected
5 beeps:	Abnormal carriage movement (.5 sec. pause between beeps)
5 beeps:	+35V supply is abnormal

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**LQ-860**

1 beep:	BEL code (.5 sec. beep)
1 beep:	A Control Panel setting is accepted
3 beeps:	Paper End detected
5 beeps:	Color select mechanism error (.5 sec. beep, .5 sec between beeps)
5 beeps:	Abnormal carriage movement (.5 sec. beep, .5 sec between beeps)
5 beeps:	CG ROM failure (.5 sec. beep, .5 sec between beeps)

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**LQ-1500**

1 beep:	BEL code
5 beeps:	Paper End detected
5 beeps:	Abnormal carriage movement (.5 sec. pause between beeps)

**LQ-2500**

**NOTE:** Printers with LCD displays use error messages along with beeps to inform the user of problems. The following messages will help you to troubleshoot problems.

A blank LCD screen with the Power-on LED lit can be caused by a bent pin on one of the PROMs or jumper J1 may be set incorrectly.

1 beep:	BEL code
5 beeps:	Abnormal voltage-
5 beeps:	Abnormal carriage movement (.5 sec. pause between beeps)

**LQ-2500 LCD Codes:**

00	Invalid ID request to CGROM
03	EEROM read/write error
10	Abnormal carriage movement

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**LQ-2550**

1 beep:	BEL code
3 beeps:	Paper End detected
5 beeps:	Abnormal carriage movement (.5 sec. pause between beeps)
5 beeps:	Platen Gap adjustment error (.5 sec. pause between beeps)
5 beeps:	Case open

**LQ-2550 LCD Codes:**

00	(1) The font could not be found. The printer's internal program could not find the target font.
	(2) Missing or damaged 7A ROM
02	Internal ROM check does not match. The versions may have been mixed.

LQ-2550 cont.

- 03 A 'Verify After Write' check to the SRAM has failed. The SRAM could be bad.
- 10 This is a motor control error. Four possible areas of failure are:
  - a. CR home condition not detected at power up
  - b. Platen gap motor HP not detected correctly
  - c. Friction/Tractor feed switching error
  - d. Physical obstruction such as a jammed ribbon
- 11 Skewed paper detect error. Since the initial reading upon loading a single sheet paper, the paper has skewed. This is a printhead wire protection feature.
- 12 Illegal paper positioning.
  - (1) If the paper is loaded using the knob instead of the LOAD/EJECT switch, this error condition will occur. This is a printhead wire protection feature.
  - (2) PE sensor may have failed or is not connected.
- 20 CPU error. An undefined op-code was detected.

NOTES: Error codes 11 and 12 are usually caused by new operators who are un-familiar with the machine. Both of these errors are corrected by turning the printer off, taking out the paper and turning the printer back on. Both features were added to ensure proper paper handling and prevent paper jams, which can result in printhead failures.

Incorrect jumper settings on the ROMA board may cause errors 10 or 20. The correct settings are documented in the Service Manual (page A-54, figure A-52) and on TIB LQ2550-005.

Errors 0,2, 3, 10, and 20 may require a repair, adjustment or replacement.

# Product Support Bulletin

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Subject: Quick Reference for Current Dot-Matrix Printer Print Speeds

Date: 10/9/92  
Page(s): 1 of 1

PSB No: P-0030C  
Originator: SLS

## 9-PIN PRINTERS

Model	Draft 12 CPI	High-Speed Draft 10 CPI	NLQ 10 CPI	NLQ 12 CPI
AP-2250	200 CPS	240 CPS	n/a	40 CPS 48 CPS
LX-810	200 CPS	240 CPS	n/a	40 CPS 48 CPS
FX-870/1170	285 CPS	342 CPS	380 CPS	57 CPS 68 CPS
DFX-5000	400 CPS	480 CPS	533 CPS	80 CPS 96 CPS
DFX-8000	800 CPS	960 CPS	1066 CPS	160 CPS 192 CPS

## 24-PIN PRINTERS

Model	Draft 10 CPI	Draft 12 CPI	High-Speed Draft 10 CPI	LQ 10 CPI	LQ 12 CPI
AP-3250	167 CPS	200 CPS	n/a	60 CPS	72 CPS
LQ-570/1070	210 CPS	252 CPS	225 CPS	70 CPS	84 CPS
LQ-860	246 CPS	295 CPS	300 CPS	82 CPS	98 CPS
LQ-870/1170	275 CPS	330 CPS	300 CPS	92 CPS	110 CPS
LQ-2550	333 CPS   400 CPS		n/a	111 CPS	133 CPS

### GLOSSARY OF TERMS

**CPI:** Characters Per Inch

**CPS:** Characters Per Second

**Draft:** Draft uses a minimum number of dots per character for high-speed printing.

**Elite:** 12 Characters Per Inch (12 CPI)

**Pica:** 10 Characters Per Inch (10 CPI)

**LQ:** Letter Quality reduces the print speed and increases the number of dots per character to increase the print quality. (24-pin printers only)

**NLQ:** Near Letter Quality reduces the print speed and increase the number of dots per character to increase the print quality. NLQ printing requires two passes per character. (9-pin printers only)



# Product Support Bulletin

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Subject: Quick Reference for 9/24 Pin Printer Paper Specifications

Date: 10/9/92  
Page(s): 1 of 1

PSB No: P-0022D  
Originator: SLS

This PSB provides a quick reference for the paper specifications on Epson's current line of Q-pin and 24-pin dot-matrix printers when using continuous paper. The 'Maximum No. of Copies' is the maximum allowable number of copies when using continuous multi-part carbonless paper. The "Total" number is the maximum allowable number of copies including the original. The 'Maximum Total Thickness' is the maximum allowable total thickness including the original plus any copies.

## 9-PIN PRINTERS

Model	Orig. + Maximum No. of Copies		Total	Maximum Total Thickness
AP-2250 *	1	2	3	0.0098" (0.25mm)
LX-810	1	2	3	0.0098" (0.25mm)
FX-870/1170	1	3	4	0.0126" (0.32mm)
DFX-5000 (Front Tractor)	1	5	6	0.018" (0.46mm)
(Rear Tractor)	1	3	4	0.012" (0.30mm)
DFX-8000 (Front Tractor)	1	5	6	0.018" (0.46mm)
(Rear Tractor)	1	3	4	0.012" (0.30mm)

## 24-PIN PRINTERS

Model	Orig. + Maximum No. of Copies		Total	Maximum Total Thickness
AP-3250 *	1	1	2	0.0071" (0.18mm)
LQ-570/1070	1	3	4	0.0126" (0.32mm)
LQ-860	1	3	4	0.0126" (0.32mm)
LQ-870/1170	1	3	4	0.0126" (0.32mm)
LQ-2550	1	5	6	0.018" (0.46mm)

\* Note: The AP-2250 and AP-3250 require an optional push tractor to use continuous paper.

# Product Support Bulletin

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Subject: Quick Reference for Printer Acoustic Noise Levels

Date: 6/5/91  
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Originator: SLS

Sound intensity is measured in units called Bels (named after Alexander Graham Bell,) or more commonly in tenths of this fundamental unit: decibels. In making noise measurements a weighting network is applied in an attempt to match the frequency response of the instrument to that of the human ear. The most common is the A weighting network, with resulting measurements expressed in dB(A).

The following is a list of current product's noise levels tested in accordance with standards set by the International Standards Organization (ISO). The acoustic noise levels for the 9 pin printers are averages while printing in Near Letter Quality (NLQ) mode using continuous paper and are not guaranteed figures. The acoustic noise levels for the 24 pin printers are averages while printing in Letter Quality (LQ) mode using continuous paper and are not guaranteed figures. The acoustic noise levels for the laser printers are averages while using single sheet paper and are not guaranteed figures.

## 9 PIN PRINTERS

MODEL	NOISE LEVEL
LX-810	56 dB(A)
FX-850	56 dB(A)
FX-1050	56 dB(A)
DFX-5000	55 dB(A)
DFX-8000	55 dB(A)

## 24 PIN PRINTERS

MODEL	NOISE LEVEL
LQ-200	55 dB(A)
LQ-510	56 dB(A)
LQ-1010	56 dB(A)
LQ-850	56 dB(A)

MODEL	NOISE LEVEL
LQ-860	55 dB(A)
LQ-1050	55 dB(A)
LQ-2550	55 dB(A)

### **LASER PRINTERS**

MODEL	NOISE LEVEL
EPL-7000	50 dB(A)
EPL-7500	50 dB(A)